

**Organic Electroluminescent Device Based On  
2,5-Diaminoterephthalic Acid Derivatives**

**ABSTRACT**

The application relates to an organic electroluminescent device which contains 2,5-diaminoterephthalic acid derivatives of formula 1a as emitter substances in one or several emitter layers in a pure or doped manner. The ring A is a triple unsaturated benzole ring wherein R<sup>4'</sup> and R<sup>8'</sup> are equal to zero or ring A is a double unsaturated ring respectively provided with a double bond in the 1,2 position and 4,5-position, and wherein R<sup>10</sup> is a nitrile radical -CN or a radical

C(=X<sup>1</sup>)-X<sup>2</sup>R<sup>1</sup>; R<sup>11</sup> is a nitrile radical -CN or a radical -C(=X<sup>3</sup>)-X<sup>4</sup>R<sup>5</sup>, X<sup>1</sup> and X<sup>3</sup> are oxygen, sulphur or imino, X<sup>2</sup> and X<sup>4</sup> are oxygen, sulphur or optionally substituted amino, R<sup>1</sup> to R<sup>8</sup>, R<sup>4'</sup> and R<sup>8'</sup> are H, C1-C20-alkyl, aryl, heteroaryl, R<sup>4</sup> and R<sup>8</sup> can also be halogen, nitro, cyanogen or amino, R<sup>2</sup> to R<sup>4</sup>, R<sup>6</sup> - R<sup>8</sup>, R<sup>4'</sup> and R<sup>8'</sup> can also be trifluoromethyl or pentafluorophenyl, and wherein certain radicals can form a saturated or unsaturated ring. The novel devices are characterised by narrow emission bands, low driver voltages, high photometric efficiency and high thermal stability within a broad spectral range.

